

EGT2  
ENGINEERING TRIPOS PART IIA

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Thursday 4 May 2023 2 to 3.40

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**Module 3E11**

**ENVIRONMENTAL SUSTAINABILITY AND BUSINESS**

*Answer not more than **two** questions.*

*All questions carry the same number of marks.*

*The **approximate** percentage of marks allocated to each part of a question is indicated in the right margin.*

*Write your **candidate number** not your name on the cover sheet.*

**STATIONERY REQUIREMENTS**

Single-sided script paper

**SPECIAL REQUIREMENTS TO BE SUPPLIED FOR THIS EXAM**

None

**10 minutes reading time is allowed for this paper at the start of the exam.**

**You may not start to read the questions printed on the subsequent pages of this question paper until instructed to do so.**

**You may not remove any stationery from the Examination Room.**

- 1 The founder of a growing start-up with a competitive business idea of a green tech solution asks you to systematically evaluate which business model and strategies based on the Doughnut Model would be promising. The founder asks you to cover the following:
  - (a) Outline the purpose and key elements of the Doughnut Model, in general, and for businesses specifically. [25%]
  - (b) Explain what “deep business design” means. What are the “five layers of business design”? [25%]
  - (c) Building on part (b): What are the options the business might look to develop if it wants to create a sustainable business and adhere to the model of a Doughnut Economy? You may use real-world examples you are familiar with. [50%]

Version LR/1

2 The Circular Economy (CE) is one of the most promising approaches to “Net Zero Policies”.

- (a) Define, explain, and illustrate what is meant by Circular Economy. [30%]
- (b) Define the concept of “ecological engineering” and discuss using one example. [30%]
- (c) Name two examples of companies setting ambitious circular strategies. Explain their circular approach. What are the main barriers, and what are the main opportunities for them when developing a CE approach? [40%]

Version LR/1

- 3 The concept of Environment, Social and Governance (ESG) has been on the rise for the last decade or so, even though there has more recently been a substantial backlash.
- (a) What are the main reasons ESG entered board room thinking and company strategies? Explain the backlash against the concept of ESG. Do you think the backlash is justified or not? [40%]
- (b) Imagine you are the CSO (Corporate Sustainability Officer) of a mid-sized tech firm in the energy industry, responsible for developing an effective and credible ESG strategy. What are the key opportunities, and what are the main pitfalls you should consider? [60%]

**END OF PAPER**